

**REMARKS**

Claims 1-10 are active in the case. Reconsideration is respectfully requested.

The present invention relates to an electrophotographic photoreceptor.

**Claim Amendments**

Several of the claims have been amended in order to improve upon the syntax of the claims. None of the amendments alter the scope of the claims or introduce new matter therein. Accordingly, entry of the amendment into the record is respectfully requested.

**Prior Art Rejection**

Claims 1-10 stand rejected based on 35 USC 103(a) as obvious over Yu et al, U.S. Patent 6,183,921 in view of Hoshizake, U.S. Patent 5,942,361 and Tamoto, U.S. Application Publication '03/73015. This ground of rejection is respectfully traversed.

As set forth by the present claims, the present invention is directed to a photoreceptor that is comprised of at least three of the components set forth in the claims. The characterizing feature of the claimed invention is that the photoreceptor has the property such that when the photoreceptor is charged so that it has a potential of -700 V and then is exposed to light at an exposure intensity of  $0.4 \mu\text{J}/\text{cm}^2$ , the potential (PL) of the light exposed portion of the photoreceptor decreases at a rate not greater than 700 V/sec during a time period ranging from a time of 35 msec after the exposure to the transition time of the photoreceptor. By this means the objective of the invention is achieved of producing high quality images at high speeds without causing a residual image problem and which has good durability, good cleanability and

good transferability. On the other hand, none of the references that have been cited and applied against the present claims teach or suggest a photoreceptor having the property set forth in the present claims.

Yu et al discloses an electrophotographic imaging member that is said to have improved resistance to bending induced dynamic fatigue cracking and curling. The development of cracks is particularly a problem with photoreceptors that contain tetra-substituted biphenylamine polymeric reaction products when static-bend tested or when subjected to dynamic flexing. Another problem is that when a charge transport layer is applied by wet coating and dried at elevated temperature, a thermal contraction mismatch between the charge transport layer and the substrate can result in greater dimensional shrinkage in the charge transport layer than in the substrate, which results in curling. Accordingly, the finding of patentees is that if a plasticizer such as a phthalate ester or a type of branched chain ester is incorporated in the photoreceptor containing tetra-substituted biphenylamine polymeric reaction products, the stated problems can be overcome. Obviously, the discovery of the patent does not teach or suggest the present invention. Accordingly, the Yu et al patent does not teach or suggest the present invention and withdrawal of the reference is respectfully requested.

The Hoshizaki et al patent is directed to a different aspect of electrophotographic technology than that of Yu et al. As discussed in columns 1 and 2 of the reference, a type of photosensitive member (photoreceptor) that has been formed is characterized by a potential decay that does not occur until the exposure amount has reached a predetermined level, which in other terms is stated as a S-type photopotential decaying photosensitive member. However, problems exist with this technological aspect of photosensitive members so that the objective

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of Hoshizaki et al has been to provide a new type of S-type photosensitive member that exhibits excellent electrophotographic properties, and high performance. Hoshizaki et al teaches an improved electrophotographic photosensitive member wherein the charge transport layer of the member comprises a polymer compound in a phase separated state with a modulated structure comprising an electrically inactive phase, and a charge transport phase. The layer is characterized by the feature that the amount of light that is required to effect image exposure for 50 % potential decay is less than 5 times the amount of light required for image exposure for 10 % potential decay. Clearly, this teaching of the patent does not in any way teach or suggest the claimed requirement of the present invention. It certainly in no way relates to the objective of the Yu et al patent so that the combination of the two references does not suggest the present invention.

Finally, the cited Tamoto et al publication is believed to be unrelated to the specific technical areas of either of the above discussed references. Rather, Tamoto et al teaches the objective of providing a durable photoreceptor that produces high quality images without blurring while preventing increases of residual potential upon repeated use for long periods of time. This objective is achieved in an electrophotographic photoreceptor that is comprised of at least an electroconductive substrate, at least one photosensitive layer overlying the substrate and optionally a protective layer overlying the photosensitive layer, wherein the outermost layer of the layered construction is comprised of a filler, a binder resin and an organic compound that has an acid value ranging from 10 to 700 mg KOH/g. Clearly, this aspect of technology of electrophotographic photoconductors is distinctly different from the teachings of the above two cited references, and is such that even when combined with the teachings of the

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other references, does not suggest the claimed photoreceptor of the present invention.

As to the claimed method of manufacturing the present photoreceptor, none of the references teach or suggest the spray coating of a protective layer coating onto the photosensitive layer component of a product photoreceptor in such a manner that the weight of the protective layer is characterized by two separately measured weights W1 and W2, as these quantities are defined in the present claims. Accordingly, the combined references do not suggest the claimed process of manufacture of the present invention.

As to the claimed image forming apparatus of present Claim 8, since none of the references teach or suggest the presently claimed photoreceptor, none of the references teach, or the references in combination suggest, the claimed image forming apparatus of the invention which requires the claimed photoreceptor as a component. Accordingly, Claim 8 is believed to be clear of the prior art.

Finally, since the prior art individually does not teach or in combination does not suggest the present photoreceptor, the claimed process cartridge of the invention as claimed in Claim 10 is free of the cited prior art. Accordingly, withdrawal of the outstanding rejection of the claims is requested.

Claims 1-10 stand provisionally rejected on non-statutory double patenting grounds over Claims 1-28 of Kami et al '642. This ground of rejection is respectfully traversed.

The claimed photoreceptor of Claim 1 of the '642 publication is said to be comprised of a photosensitive layer that is comprised of a charge generation material, a charge transport material and an inorganic filler. The claim requires that the inorganic filler that is located on the surface side of the photosensitive layer at a higher concentration than that at the bottom side of

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the photosensitive layer near the electroconductive substrate. Further, the outermost layer of the photoreceptor is said to have an outermost layer that has a water vapor permeability not greater than  $50 \text{ g} \cdot \text{m}^{-2} \cdot 24 \text{ h}^{-1}$ . None of these claimed characteristics of the photosensitive layer suggest the claimed photoreceptor of the present invention which has the stated inventive characteristic that the photoreceptor has the property such that when the photoreceptor is charged so as to have a potential of -700 V and then is exposed to light at an exposure intensity of  $0.4 \mu\text{J}/\text{cm}^2$ , the potential (PL) of a light exposed portion of the photoreceptor decreases at a rate not greater than 700 V/sec during a time period ranging from a time of 35 msec after the exposure to the transition time of the photoreceptor. Moreover, the claimed method of Claim 21 does not suggest the weight relationship of W1 and W2 of present Claim 7.

As to the image forming apparatus of present Claim 8, since this claim requires the photoreceptor of present Claim 1, which is not suggested by Claim 1 of the publication, Claim 22 of the publication does not suggest present Claim 8. Much the same situation exists with respect to present Claim 10, since this claim requires the photoreceptor of present Claim 1, which is not suggested by the claims of the publication. Accordingly, withdrawal of the rejection is respectfully requested.

It is also noted that the double patenting ground of rejection is a provisional rejection. Applicants will take further appropriate action upon the indication of patentable subject matter in the case.

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It is believed that the application is in proper condition for allowance. Early notice to this effect is earnestly solicited.

Respectfully submitted,

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A handwritten signature in black ink, appearing to read 'F D Vastine', with a long horizontal flourish extending to the right.

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